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09/773,437	01/31/2001	Wesley McMillan Devine	5577-224	8019

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EXAMINER	
MEUCCI, MICHAEL D	

ART UNIT	PAPER NUMBER
2142	3

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/773,437	Applicant(s) DEVINE ET AL.	
	Examiner Michael D Meucci	Art Unit 2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 January 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☒ Claim(s) *8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 January 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03/23/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "60" has been used to designate both TN3270E Client in Figure 2 and TN3270 Server in Figure 3. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: Changes in the specification are needed to accommodate the aforementioned numbering problem with the drawings (character "60" designating both the TN3270E Client in Figure 2 and TN3270 Server in Figure 3). Appropriate correction is required.

Claim Objections

3. Claim 8 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent

form, or rewrite the claim(s) in independent form. An IP based connection is a type of connection stemming from the TCP/IP suite. In its current form, claim 8 is broadening the scope of the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

a. Claim 4 recites the limitation "the LUSTAT message" in line 4. There is insufficient antecedent basis for this limitation in the claim. The LUSTAT message disclosed in claim 4 is not previously mentioned in claim 4 or any other claims it is dependent upon.

b. Claims 9, 12, 13, and 14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 states that if the response to the query times-out, the second connection is created. Claims 12-13 state that the X.509 certificate is sent over the second connection. Claim 14 is then invalidated because it states that the query is sent **after** the X.509 is authenticated, which is said to be sent over the second connection. Examiner believes the applicant either meant to specify in claim 14: "The method of Claim 13, wherein the step of transmitting a query is only performed if the X.509 certificate **sent with the connection request** corresponds to the TN3270E client" (as specified on lines 22-24 of page 15 in the written disclosure), or "The method of Claim 13, wherein the step of **resuming**

communications over the second TCP/IP connection is only performed if the X.509 certificate corresponds to the TN3270E client." Clarification of the issue is required for the specified claims. Appropriate correction is required.

c. Claim 15 recites the limitation "the SNA application" in line 3. There is insufficient antecedent basis for this limitation in the claim. The SNA application disclosed in claim 15 is not previously mentioned in claim 15 or any other claims it is dependent upon.

d. Claim 18 recites the limitation "the LUSTAT message" in line 4. There is insufficient antecedent basis for this limitation in the claim. The LUSTAT message disclosed in claim 18 is not previously mentioned in claim 18 or any other claims it is dependent upon.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

a. Claims 1, 19, and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over IBM TDB-ACC-NO: NN86034482, hereinafter referred to as IBM-86034482, and further in view of Isfeld et al. (U.S. 5,802,278), hereinafter referred to as Isfeld.

IBM-86034482 teaches reestablishing the connection between the TN3270 server and the TN3270 client (lines 1-6 on page 2, in the paragraph beginning on page 1 and ending on page 2).

IBM-86034482 fails to teach forwarding a screen refresh request to the SNA application. However, Isfeld discloses: "the management system will forward a request to the central processor to refresh the entry," (lines 28-30 of column 47).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to forward a screen refresh request to the SNA application. The screen refresh is requested to refresh the screen of the client. It is for this reason that one or ordinary skill in the art at the time of the applicant's invention would have been motivated to forward a screen refresh request to the SNA application in the system as taught by IBM-86034482.

b. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over IBM-86034482 and Isfeld, as applied to claim 1 above, and further in view of King et al. (U.S. 6,014,702) hereinafter referred to as King.

IBM-86034482 fails to teach receiving a screen refresh from the SNA application; and forwarding the screen refresh to the TN3270E client over the reestablished IP connection. However, King discloses: "data then transmitted from the target host back to the TN3270 client emulator. This data flows back over the EHLLAPI interface and the proprietary class library interface to reach the 3270 screen GUI applet and ultimately the user," (lines 48-53 of column 6).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to receive the refresh request from the SNA application and to forward the screen refresh to the client. The user at a workstation uses a Java enabled browser to initiate downloading of a 3270 screen GUI applet from the GUI class library to initiate a connection (lines 36-41 of column 6 in King). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to receive a screen refresh from the SNA application and forward the screen refresh to the client in the system as taught by IBM-86034482.

c. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over IBM-86034482 and Isfeld, in view of King, as applied to claim 2 above, and further in view of Lederer et al. (U.S. 5,325,361) hereinafter referred to as Lederer.

IBM-86034482 fails to teach sending an LUSTAT message to the SNA application. However, Lederer discloses: "an LUSTAT RU (IBM SNA protocol) is transmitted by the host computer module to the host application program associated with the Application Session Block, (lines 38-41 of column 20).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to send an LUSTAT message to the SNA application. "The LUSTAT command indicates to the host application program that it may now transmit data," (lines 42-43 of column 20, in Lederer). It is for this reason that one of ordinary skill in the art at the time of the

applicant's invention would have been motivated to send an LUSTAT message to the SNA application in the system as taught by IBM-86034482.

d. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over IBM-86034482 and Isfeld, in view of King as applied to claim 2 above, and in further view of Hadland (U.S. 6,405,254 B1).

IBM-86034482 fails to teach receiving a user logon screen from the SNA application; forwarding the user logon screen to the client; receiving logon information from the client; checking the authenticity of the logon information; and forwarding the screen refresh to the client if the logon information is authentic.

However King and Hadland disclose the constraints respectively:

King discloses: "Data is then transmitted from the target host back to the TN3270 client emulator 209 (such as logon screen text). This data flows back over the EHLLAPI interface (213) and the proprietary class library interface (212) to reach the 3270 screen GUI applet and ultimately the user. The user responds by logging on and a session is established between Web server 203 and the host, the output and input to which is handled via flows 212 and 213," (lines 48-56 of column 6 in King).

Hadland discloses: "At step 214, first utility 104 accesses logon subsystem 62 to validate logon information received from remote 16. If the logon information is not validated at step 214, then the communications session is terminated at step 216," (lines 26-29 of column 6 in Hadland).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to

receive the logon screen from the SNA application, forward the logon screen to the client, and receive logon information from the client. "After logging on the user has a persistent end-to-end session with the host (113) over which they can use applications on the host for functions such as database queries or reading electronic mail," (lines 21-25 of column 6 in King). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to receive the logon screen from the SNA application, forward the logon screen to the client, and receive logon information from the client in the system as taught by IBM-86034482.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to check the authenticity of the received logon information and forward the screen refresh to the client only if the logon information is authentic. "In addition, logon subsystem 62 may retrieve information from logon database 68 to validate a user name and password provided by remote 16, or to access or process other account information of remote 16," (lines 56-60 of column 5 in Hadland). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to check the authenticity of the received logon information and forward the screen refresh to the client if the logon information is authentic in the system as taught by IBM-86034482.

e. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over IBM-86034482 and Isfeld, in view of King as applied to claim 2 above, and in further view of Perlman (U.S. 5,455,865).

IBM-86034482 fails to teach the screen refresh comprising a last data screen that was forwarded from the SNA application and acknowledged as received by the client. However, Perlman discloses: "the node scans around the entire data-base and, if no acknowledgement has yet been received, returns to a set flag associated with an earlier transmitted packet. The node again sends the packet and again scans for the next set flag," (line 67 of column 7, lines 1-4 of column 8).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to comprise the screen refresh of the last data screen that was forwarded from the SNA application and acknowledged as received by the client. "The node continues to transmit the packets associated with set PACKET SEND flags whenever the appropriate communication links become available," (lines 4-6 of column 8 in Perlman). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to comprise the screen refresh of the last data screen that was forwarded from the SNA application and acknowledged as received by the client.

f. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over IBM-86034482 and Isfeld as applied to claim 1 above, and in further view of King and Hadland.

IBM-86034482 fails to teach receiving a user logon screen from the SNA application; forwarding the user logon screen to the client; receiving logon information

from the client; checking the authenticity of the logon information; and forwarding the screen refresh to the client if the logon information is authentic.

However King and Hadland disclose the constraints respectively:

King discloses: "Data is then transmitted from the target host back to the TN3270 client emulator 209 (such as logon screen text). This data flows back over the EHLLAPI interface (213) and the proprietary class library interface (212) to reach the 3270 screen GUI applet and ultimately the user. The user responds by logging on and a session is established between Web server 203 and the host, the output and input to which is handled via flows 212 and 213," (lines 48-56 of column 6 in King).

Hadland discloses: "At step 214, first utility 104 accesses logon subsystem 62 to validate logon information received from remote 16. If the logon information is not validated at step 214, then the communications session is terminated at step 216," (lines 26-29 of column 6 in Hadland).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to receive the logon screen from the SNA application, forward the logon screen to the client, and receive logon information from the client. "After logging on the user has a persistent end-to-end session with the host (113) over which they can use applications on the host for functions such as database queries or reading electronic mail," (lines 21-25 of column 6 in King). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to receive the logon screen

from the SNA application, forward the logon screen to the client, and receive logon information from the client in the system as taught by IBM-86034482.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to check the authenticity of the received logon information and forward the screen refresh to the client only if the logon information is authentic. "In addition, logon subsystem 62 may retrieve information from logon database 68 to validate a user name and password provided by remote 16, or to access or process other account information of remote 16," (lines 56-60 of column 5 in Hadland). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to check the authenticity of the received logon information and forward the screen refresh to the client if the logon information is authentic in the system as taught by IBM-86034482.

g. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over IBM-86034482 and Isfeld, in view of King and Hadland as applied to claim 4 above.

IBM-86034482 fails to teach forwarding a screen refresh request to the SNA application, receiving a screen refresh from the SNA application, and forwarding the screen refresh to the client as being performed by the server.

However, Isfeld, King, and Hadland disclose the constraints respectively:

Isfeld discloses: "the management system will forward a request to the central processor to refresh the entry," (lines 28-30 of column 47).

King discloses: "data then transmitted from the target host back to the TN3270 client emulator. This data flows back over the EHLLAPI interface and the proprietary

class library interface to reach the 3270 screen GUI applet and ultimately the user," (lines 48-53 of column 6).

Hadland discloses: "At step 214, first utility 104 accesses logon subsystem 62 to validate logon information received from remote 16. If the logon information is not validated at step 214, then the communications session is terminated at step 216," (lines 26-29 of column 6 in Hadland).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to forward a screen refresh request to the SNA application. The screen refresh is requested to refresh the screen of the client. It is for this reason that one or ordinary skill in the art at the time of the applicant's invention would have been motivated to forward a screen refresh request to the SNA application in the system as taught by IBM-86034482.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to receive the refresh request from the SNA application and to forward the screen refresh to the client. The user at a workstation uses a Java enabled browser to initiate downloading of a 3270 screen GUI applet from the GUI class library to initiate a connection (lines 36-41 of column 6 in King). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to receive a screen refresh from the SNA application and forward the screen refresh to the client in the system as taught by IBM-86034482.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in IBM-86034482 to check the authenticity of the received logon information and forward the screen refresh to the client only if the logon information is authentic. "In addition, logon subsystem 62 may retrieve information from logon database 68 to validate a user name and password provided by remote 16, or to access or process other account information of remote 16," (lines 56-60 of column 5 in Hadland). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to check the authenticity of the received logon information and forward the screen refresh to the client if the logon information is authentic in the system as taught by IBM-86034482.

h. Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over IBM-86034482 and Isfeld, and in view of King as applied to claim 2 above.

Official notice is taken of the IP connection of claim 2 comprising a TCP/IP connection. The TCP/IP suite is very well known in the art at the time of the applicant's invention. It would have been obvious to one of ordinary skill in the art to utilize TCP/IP connection in the system as taught by IBM-86034482.

i. Claims 9, 20, and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (U.S. 6,088,738) in view of Rosin et al. (U.S. 6,028,600) hereinafter referred to as Rosin and Silverstein et al. (U.S. 5,758,084) hereinafter referred to as Silverstein.

Okada discloses: "then transmits the connection request command to the host which is a host corresponding to the LU name," (lines 1-3 of column 3).

Okada fails to teach: transmitting a query to the client over the first connection; establishing a second connection in response to the connection request if a response to the query is not received within a specified time period; and resuming communications over the second connection.

However, Rosin and Silverstein disclose the constraints respectively:

Rosin teaches: "the server queries the client regarding its available data stream connections," (lines 24-26 of column 3).

Silverstein teaches: "If step 120 determines that the connection between the client and the server is not ready for writing, step 120 proceeds to step 126, which determines whether a timeout condition has occurred by accessing the timeout.sub.-- clock 33. If a timeout condition has not occurred, step 126 causes step 110 to return. Otherwise, step 127 sets the status variable 32 equal to the "ERROR" state. Step 128 closes the connection. Step 128 may close the connection by performing a close operation on the file descriptor fp1 35 of the server structure 30. Step 129 determines whether another address for the server is available. If so, the status variable 32 is set to the "NO.sub.-- CONNECTION" state to indicate to the prcmd() routine 11 to attempt to establish a new connection between the client and the server upon the next invocation of the prcmd() routine 11," (lines 41-56 of column 10).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to transmit a query to the client over the first connection. "The server queries the client regarding its available data stream connections in order to determine the most efficient delivery of

different types of data through all of the available connections," (lines 24-28 of column 3 in Rosin). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to transmit a query to the client over the first connection in the system as taught by Okada.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to establish a second connection in response to the connection request if a response to the query is not received within a specified time period; and resume communications over the second connection. "Step 129 determines whether another address for the server is available. If so, the status variable 32 is set to the "NO.sub.-- CONNECTION" state to indicate to the prcmd() routine 11 to attempt to establish a new connection between the client and the server upon the next invocation of the prcmd() routine 11," (lines 51-56 of column 10 in Silverstein). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to establish a second connection in response to the connection request if a response to the query is not received within a specified time period, and resume communications over the second connection in the system as taught by Okada.

j. Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, in view of Rosin and Silverstein as applied to claim 9 above, further in view of Suzuki (6,707,567 B1).

Okada fails to teach a query to which the client automatically responds. However, Suzuki discloses: "a prescribed client computer of the central system may

automatically respond and handle a request for the related materials," (lines 57-59 of column 14).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to comprise the query of a query to which the client automatically responds. "A burden of the central operator can be almost completely removed," (lines 59-60 of column 14 in Suzuki). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to comprise the query of a query to which the client automatically responds in the system as taught by Okada.

k. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, in view of Rosin and Silverstein as applied to claim 9 above, further in view of Altschuler et al. (U.S. 6,012,052) hereinafter referred to as Altschuler.

Okada fails to teach the query comprising a timemark request. However, Altschuler discloses: "At a high level, FIG. 17 depicts an exemplary data structure 1700 for communicating a resource request from a client 702 to a resource server 704. As shown in FIG. 17, the resource request data structure 1700 may include a request type ID field 1710, a resource name field 1720, a resource location field 1730, a return (client) address field 1740, a selection and/or request time stamp field," (lines 14-20 of column 22).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to comprise the query of a timemark request. "The time stamp field includes time at which the user

selection, or resource request was made," (lines 34-36 of column 22 in Altschuler). It is for this reason that one or ordinary skill in the art at the time of the applicant's invention would have been motivated to comprise the query of a timemark request.

l. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, in view of Rosin and Silverstein as applied to claim 9 above, further in view of Hadland.

Okada fails to teach the step of authenticating the identity of the client prior to resuming communications with the client over the second connection. However, Hadland discloses: "If second utility is utilized in the communications session, then session manager spawns second utility in response to logon information at step 242. For example, logon information received from remote or retrieved using logon subsystem and logon database may specify second utility to be utilized in the communications session. At step 244, session manager sends a message to second utility with the message source designated as first utility. Second utility sends an acknowledgment to first utility at step 246. This acknowledgment of the message received from session manager establishes communications between first utility and second utility," (lines 53-65 of column 6).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to authenticate the identity of the client prior to resuming communications with the client over the second connection. "These logon definitions may be combined to establish a variety of communications session between devices in communications system 10," (lines 54-56

of column 5 in Hadland. It is for this reason that one or ordinary skill in the art at the time of the applicant's invention would have been motivated to include the step of authenticating the identity of the client prior to resuming communications with the client over the second connection.

m. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, in view of Rosin, Silverstein, and Hadland as applied to claim 12 above, and further in view of Jardin (U.S. 6,681,327 B1).

Okada fails to teach receiving an X.509 certificate over the second connection; and verifying that the X.509 certificate corresponds to the client. However, Jardin discloses: "When a client and server wish to communicate using a SSL connection, they exchange information about a protocol version, select cryptographic algorithms, authenticate each other, and use public-key encryption techniques to generate shared secrets," (lines 48-52 of column 4) and "(this) allows the destination device to obtain a public key and authenticate the source device using X.509 standard, which is an International Telecommunication Union (ITU) standard for defining digital certificates," (lines 27-30 of column 2).

Official notice taken of the TCP/IP connection used for receiving an X.509 certificate. TCP/IP is well known in the art and it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention that any data transfer protocol could be used to communicate between the client and the server, in this case, for sending/receiving the X.509 certificate.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to receive an X.509 certificate over the connection and verify that the X.509 certificate corresponds to the client. "(This) allows the destination device to obtain a public key and authenticate the source device," (lines 27-28 of column 2 in Jardin). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to receive an X.509 certificate over the connection and to verify that the X.509 certificate corresponds to the client.

n. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, in view of Rosin, Silverstein, Hadland, and Jardin as applied to claim 13, and further in view of McKelvey (U.S. 5,896,499).

Okada fails to teach the step of transmitting a query is only performed if the X.509 certificate corresponds to the TN3270E client. However, McKelvey discloses: "authentication information can be used by embedded security processor when examining network communication packets. Embedded security processor can extract authentication information (e.g. userid/password, X.509 certificate, etc.) from a packet and present the information to main processor 110 for verification. Main processor can be configured to return a boolean (yes/no) response as to whether or not the packet or packets should be authorized transmission within the secure area of system," (lines 56-65 of column 10).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to transmit a

query only if the X.509 certificate corresponds to the client. "This feature can be used to control access for which users on the secure network can access the unsecure network," (lines 65-67 of column 10 in McKelvey). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to transmit a query only if the X.509 certificate corresponds to the client in the system as taught by Okada.

o. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada in view of Rosin and Silverstein as applied to claim 9 above, and further in view of Isfeld.

Okada fails to teach forwarding a screen refresh request to the SNA application over the second connection. However, Isfeld discloses: "the management system will forward a request to the central processor to refresh the entry," (lines 28-30 of column 47).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to forward a screen refresh request to the SNA application over the second connection. The screen refresh is requested to refresh the screen of the client. It is for this reason that one or ordinary skill in the art at the time of the applicant's invention would have been motivated to forward a screen refresh request to the SNA application in the system as taught by Okada.

p. Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada in view of Rosin, Silverstein, and Isfeld as applied to claim 15 above, and further in view of Zhu et al. (U.S. 6,601,087 B1) hereinafter referred to as Zhu.

Okada fails to teach receiving a screen refresh from the SNA application; and forwarding a screen refresh to the client over the second TCP/IP connection. However, Zhu discloses: "a document sharing application configured to receive the application screen update from the application and send the application screen update to the virtual device," (lines 46-48 of column 10).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to receive a screen refresh from the SNA application; and forward the screen refresh to the client over the second TCP/IP connection. This is done to "update the display of the shared screen with the shared screen update," (lines 50-51 of column 10 in Zhu). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to receive a screen refresh from the SNA application and to forward the screen refresh to the client over the second TCP/IP connection in the system as taught by Okada.

q. Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada in view of Rosin, Silverstein, Isfeld, and Zhu as applied to claim 16 above, and further in view of Lederer.

Okada fails to teach sending an LUSTAT message to the SNA application. However, Lederer discloses: "an LUSTAT RU (IBM SNA protocol) is transmitted by the

host computer module to the host application program associated with the Application Session Block, (lines 38-41 of column 20).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to send an LUSTAT message to the SNA application. "The LUSTAT command indicates to the host application program that it may now transmit data," (lines 42-43 of column 20, in Lederer). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to send an LUSTAT message to the SNA application in the system as taught by Okada.

r. Claim 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Okada in view of Rosin, Silverstein, Isfeld, Zhu, and Lederer as applied to claim 16 above, and further in view of King and Hadland.

Okada fails to teach receiving a user logon screen from the SNA application; forwarding the user logon screen to the client; receiving logon information from the client; checking the authenticity of the logon information; and forwarding the screen refresh to the client if the logon information is authentic.

However King and Hadland disclose the constraints respectively:

King discloses: "Data is then transmitted from the target host back to the TN3270 client emulator 209 (such as logon screen text). This data flows back over the EHLLAPI interface (213) and the proprietary class library interface (212) to reach the 3270 screen GUI applet and ultimately the user. The user responds by logging on and

a session is established between Web server 203 and the host, the output and input to which is handled via flows 212 and 213," (lines 48-56 of column 6 in King).

Hadland discloses: "At step 214, first utility 104 accesses logon subsystem 62 to validate logon information received from remote 16. If the logon information is not validated at step 214, then the communications session is terminated at step 216," (lines 26-29 of column 6 in Hadland).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to receive the logon screen from the SNA application, forward the logon screen to the client, and receive logon information from the client. "After logging on the user has a persistent end-to-end session with the host (113) over which they can use applications on the host for functions such as database queries or reading electronic mail," (lines 21-25 of column 6 in King). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to receive the logon screen from the SNA application, forward the logon screen to the client, and receive logon information from the client in the system as taught by Okada.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the system in Okada to check the authenticity of the received logon information and forward the screen refresh to the client only if the logon information is authentic. "In addition, logon subsystem 62 may retrieve information from logon database 68 to validate a user name and password provided by remote 16, or to access or process other account information of remote 16,"

(lines 56-60 of column 5 in Hadland). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to check the authenticity of the received logon information and forward the screen refresh to the client if the logon information is authentic in the system as taught by Okada.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (703) 305-1382. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey, can be reached at (703) 305-9705. The fax phone number for this Group is (703) 308-5358.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Group receptionist whose telephone number is (703) 305-3900.

JACK B. HARVEY
SUPERVISORY PATENT EXAMINER